VIDEO TO PLAY WITH

BY JOHN RICE

Toy stores are beginning to look like junior versions of the NAB convention exhibits.

Are you ready for another revolution in video technology? Ready or not, here it comes. Picture this: a new line of video camcorders at ridiculously low prices, paint systems in every home, and interactive technology that even a three-year-old child can use. Imagine the possibilities! Literally millions of products invading the marketplace. Everyone is a videographer, a graphic artist, a creator. Interactive video finally takes hold on an enormous scale. Television enters a new generation.

The revolution is here, and the products will be available by next Christmas, if not already. If you want to know more about these products, read on. Or ask the nearest child. The products alluded to are real, but the people they're aimed at are kids. *Kids!* The next generation in video literally belongs to the next generation.

The new line of high-tech video-related toys could be said to have started with the PXL-2000 from Fisher Price. The black-and-white camcorder was introduced at the 1987 Toy Fair (held every February in New York in anticipation of the coming Christmas season). The PXL-2000 was quickly dubbed the "kiddie-cam" last year, as it was the first item to put video camera technology in the hands of children. In spite of its revolutionary market position, it is also a rather remarkable technological item. The camera records black-and-white images on a standard high-bias audio cassette. A 90-minute audio cassette will yield over five minutes of video on each side.

The quality of the video is far from that available from broadcast or consumer camcorders, or even black-and-white closed-circuit TV cameras. Part of the limitations in picture quality comes from the fact that the camcorder records images at 15 frames per second (half the rate of standard NTSC video). The images are captured and played back at a pixel rate of 120 x 90.

The PXL-2000, along with two other products highlighted in this article, was the creation of James Wickstead Design Associates, in Cedar Knolls NJ. Wickstead's staff of 16 has been spending the last 20 years in concept, industrial design, engineering, and production of high-tech products. Interestingly, about half of Wickstead's work is in the toy and game field, the other half is in more traditional high-tech areas like medical technology, according to Wickstead vice president Andrew Bergman.

PRODUCTS ARE SOLD TO WEAN KIDS AWAY FROM "MINDLESS TV."

The black-and-white Fisher Price camcorder features a custom-built CCD image-pickup chip made specifically for the kiddie-cam, but the chip has already found its way into other designs produced by the company. More important than the technology of the PXL-2000 is the price and market of the camcorder system. At a list price of around $250 for the deluxe package including camcorder, tape, and black-and-white television for playback, the system is finding a clientele in the toy market. Fisher Price will not release sales figures for 1987, but Ian Sole, senior marketing manager, confirms that the company was restricted in the volume of units that they were able to manufacture. For 1988, Fisher Price's shipment of the product should run at about five times the number shipped in 1987, according to Sole. He also says that sales should be further accelerated when a camcorder-only version debuts for $150.

WHATEVER HAPPENED TO FINGER PAINT?

For the child whose interests are less in live-action video, but more along the lines of the graphic artist, there are a couple of products to encourage future Paintbox expertise. LJN Toys is marketing Videoart, an electronic drawing toy. Videoart is comprised of a control unit with a joystick that allows freehand drawing and coloring directly on a TV or monitor. The system features 16 colors for background or painting and can accept computer cartridges that contain full-screen line drawings that can be colored in or even adapted by the child/artist.

Don't look for extensive resolution in the picture, or even changeable brush sizes and styles. But look for a simple and easy-to-use product that turns the TV set into a pallette for creative young minds. The Videoart, list priced at under $120, is aimed at children age five and above.

Another product that features paint-like capabilities is Socrates, actually a mini-computer video system that makes no bones about being an educational product. The basic package includes a control unit that plugs directly into the RF input on a TV set, that in turn is controlled by a *wireless* keyboard that can operate from up to 12 feet away. Socrates is being offered by Illinois-based Video Technology, and includes learning programs in math, spelling, music—and then there's Super Painter.

Call up Super Painter from the main menu and you see a screen that isn't unlike the paint and graphic screen of a Macintosh; use a little imagination and you can get a glimpse of a Quantel Paintbox. There's a changeable color pallette, variable brush sizes, cut-and-paste options, and even a library of pre-drawn images.

The basic unit, priced at around $150, is

John Rice is publisher and editorial director of VIDEOGRAPHY. He has a four-month-old son who will probably master these toys before he does.

aimed at the five and up age group but the keyboard with two cursor controls makes painting a little difficult. For the child who doesn't like the keyboard operation, there's a mouse unit. The mouse option (retail price around $50) provides a gridded drawing tablet. The unit even comes with a cartridge "providing introduction to architectural drawing, interior design, textile, and fashion design," according to the product literature. It is, simply, a CAD system.

If the CAD system seems above the child's capacity, there's a touch pad optional unit (also priced around $50). The touch pad includes a pen, and bright, simple graphics for showing where to touch. More importantly, the Touch Pad makes the Socrates unit usable by three-year-olds.

Both LJN's Videoart and Video Technology's Socrates create single-frame, full-screen images. Both companies point out that the images can be recorded on videotape and, with practice, can be used to create animation. That "practice" infers frame-by-frame recording on the part of the child, which, while certainly possible, may be over the heads of these young artists, and even further over the heads of their parent/tutors.

There is, however, a product that will introduce the basics of animation and even allow the young artist to create a 22-frame animation that can be played back at variable speeds. And that may be the simplest of effects.

Remember the Etch-A-Sketch? The new Animator 2000 is the latest electronic outgrowth of that old reliable toy (which is still being marketed by Ohio Art). The Animator 2000 is the next generation of the Animator, which Ohio Art introduced about two years ago as the "electronic Etch-A-Sketch." The 2000 outdoes the original animator on a number of levels and is worthy of the slogan "Its mother is a computer, its father is a toy," prominent in its advertising.

The Animator 2000 is also the creation of New Jersey's Wickstead Design. It features some rather sophisticated RAM and ROM chips, according to Wickstead's Bergman, all driven by a microprocessor. It features a 2,400 pixel liquid crystal display (LCD), 196,000 bits of memory, and a digitizing touch pad and stylus.

What all that lets you do is draw . . . and draw. The unit will let you draw freehand in variable brush sizes, or it will help you draw perfect circles or straight lines. Once an image is drawn it can be saved and a new frame drawn. A total of 22 pages can be drawn sequentially, taking the original image over to the next screen for slight alteration. When done, the 22 pages can be recalled at variable speeds, creating animation.

Amber "Pee Wee Herman" France, TI, with Fisher-Price's PXL 2000 "kiddie-cam."

When the 22 frames fill up, a total of 99 screens can be stored in the unit. And there's an external cartridge that can save animations, freeing up the unit for the next project. There are also game cartridges for flying, golfing, and driving games, all controlled by the touch pad. The Animator 2000 is priced at $150 and aimed at children six and up.

A HOME FOR INTERACTIVE—IN THE HOME

The applications of video in toys aren't restricted to creative products. The toy market is also showing signs of being the long-sought-after home for interactive video. One product line that has already brought a degree of interactive viewing to children is Connor Toy's VideoSmarts and ComputerSmarts. VideoSmarts was on the shelves last Christmas and you may have seen the ads on television—not Saturday morning TV but prime time. This product is being sold to parents to wean their kids away from "mindless" TV.

Technically, VideoSmarts uses a fairly simple operating procedure. The audio-out line of your VCR is connected to a control box that features four brightly colored buttons. When one of the 13 available videotapes is played, questions are asked on the screen and answers correspond with the colored buttons. An incorrect answer gets a buzzer; a correct answer gets words of congratulations from the box.

ComputerSmarts takes this a step further. Here the "box" has a full keyboard that allows letter or music input. The unit has a single-line LCD screen, which prints the responses that are typed in, and responds from the videotape and cartridge computer programs. A similar system to the VideoSmarts keys positive and negative responses, but the system also features software cartridges that relate to the videotape program, and can even be used without the videotape.

VideoSmarts is aimed at three- to six-year-olds and is priced between $139 and $159, with the tapes running from $14 to $20. ComputerSmarts picks up with the six-year-olds and is meant for children up to ten years of age. It comes in two versions: The standard ComputerSmarts lists for $89 to $99; the deluxe (which features a fold-down LCD screen) goes for between $119 and $139.

Interactive video takes a quantum leap with the introduction of the new View-Master Video System from Ideal. It consists of a video processor, which connects to a standard TV set, and a wired remote control unit with five color-coded buttons and a joystick. Priced at around $120, it is scheduled to be available in stores this September.

It's startling to discover what the View-Master Video System can do. The product is a fully interactive device allowing extensive control of the on-screen program. The View-Master Video System was developed by ACTV, a New York-based interactive technology research firm (which has no connection to the ACTV, or advanced compatible television, being developed by NBC/SRI Labs/Sarnoff Research Center). According to ACTV president and CEO Dr. Michael Freeman, the product can even store information about the user and adapt the program to fit an individual child's profile. For instance, an onscreen message will ask the child if he can read. If no reply is received, the program will automatically read the onscreen message aloud, and then switch to display more visual information and less text.

The ACTV development is a major adapta-

tion of the VHS format. The View-Master Video System uses full-screen, full-motion videotape playback. The system offers up to four or eight options in its program, using graphic overlays created by the video processor and a second audio track that is recorded on the vertical interval of the video signal on the tape.

The video processor supplies graphic overlays to either cover sections of the screen and mask video that doesn't relate to the selected option, or to fulfill an option by drawing a graphic on the video, like placing a ball or a bottle in Big Bird's outstretched hand.

One simple but effective key to the system is the use of puppets and animated characters in the video programs. There are licensed original materials from Disney, Sesame Street, and the Muppets among the catalogue of available programs. When a puppet or cartoon character says a letter or word based on a child's response, it's amazingly effective. After all, a puppet's mouth can open, but its lips—if it has any—don't move, so there's really no way to tell if the onscreen character is saying "A" or "D" if you were to turn down the sound. What looks at first like extensive computer processing is actually clever use of the technology. The characters will even remind you if you were right or wrong about an answer to a question from earlier in the program.

NOT JUST FOR KIDS

By now, you are either exhilarated by these products and their possibilities or rather dejected about the fact that all this is for kids, and not for you. Take heart, we've saved the best for last.

Electric trains are certainly the domain of the young, but companies like Lionel have historically served a large population of adults who have small cities constructed in their basements or attics. It's those adults who are most likely to delight in the company's latest offering.

Picture the view from the front of a train engine, winding through the hills and towns of a model railroad set-up. Imagine the sights as the engine passes by buildings and trees, even other trains running on other tracks.

If you can picture this in black and white on a small screen next to the train control unit, then you can picture Lionel's Railscope, a miniature black-and-white CCD camera mounted within the engine, and feeding signals back along the tracks to a TV set.

The Railscope is yet another technology development of Wickstead Design. Although simple in its design (the CCD camera is mounted behind a plastic fixed-focus lens in the front end of the engine), it features an auto iris for amazing gray scale resolution and a 160 by 120-pixel black-and-white image. The idea of transmitting video across the train tracks may seem easy, but it requires digital transmission and conversion at the other end, along with some clever technology to overcome the interference of the DC current that powers the train.

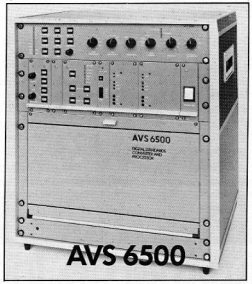
At a price range of $200 to $400, depending on the scale of the engine, it's a bit high for a Christmas gift for the novice engineer. The product also lacks the educational applications of the other toys mentioned here. But then some things should just be good plain fun. This is.

EYES TO THE FUTURE

So, what's the point? There have been electric toys, video toys, and computer toys before. Kids have been mastering computer technology before their parents are able to for some time now.

The point is this: Imagine the future of video being crafted by those who have been exposed to it all of their lives. Not the exposure of watching video, but the exposure of making video, be it in shooting from behind the camera, drawing and painting on the video screen, or selecting and crafting the end product. Consider the possibilities and you have to find it amazing, maybe frightening, and—hopefully—thrilling. □

It Didn't Become The World's Best-Selling Standards Converter For Nothing.



Want to know what has *really* made the AVS 6000 series the world's best selling standards converter and the favorite of government agencies, broadcast news networks, industrial and corporate users and post-production companies?

Well, both the AVS 6000, and its successor, the AVS 6500, are exceptionally durable and reliable units, and possess superb picture quality.

The price—under $40,000—makes the AVS 6500 the most cost-efficient machine you can buy.

The AVS 6500's unique motion interpolation system is the envy of the competition.

And, the company that sells and services the AVS 6500 in the U.S. and Canada, just happens to be the company with the most experience in the standards conversion field.

The AVS 6500: reliable, durable, superior and cost-efficient. And *that's* really something. Manufactured by AVS in Great Britain and sold and serviced exclusively by A.F. Associates throughout North America.

A.F. ASSOCIATES INC.

ADVANCED SYSTEMS AND PRODUCTS FOR THE VIDEO INDUSTRY
100 STONEHURST COURT NORTHVALE NJ 07647 (201) 767-1201
IN THE WEST: 10650 SCRIPPS RANCH BLVD. SUITE 200 SAN DIEGO, CA (619) 530-2970

CIRCLE 134 ON INFO CARD